

Abstract

The present invention concerns the use of CD34 or a polypeptide derived therefrom as cell-surface/gene transfer marker. In particular the object of the invention is a gene transfer vector and host cells transduced by the vector, the vector containing a transgene and a nucleic acid sequence coding for CD34, a fragment of the same, or a variant of the same. The vector is particularly suitable for use in procedures for identification and/or selection of genetically modified cells and in gene therapy. The invention thus further concerns kits for carrying out these procedures and the use of the vector *in vitro* and *in vivo*.